

ABSTRACT

A device for releasing gas into molten metal includes a base having a discharge. The discharge has a first section including a first cross-sectional area and a second section including a second cross-sectional area, wherein the first section is upstream of the second section and the first cross-sectional area is smaller than the second cross-sectional area. A gas-release opening is positioned so that it can release gas into one or more of the first section or the second section. As the molten metal moves from the first cross-sectional area to the second cross-sectional area gas is released into the molten metal and the molten metal flow helps to draw the gas into the flow, thereby lowering the pressure required to release gas into the molten metal. Metal-transfer conduits other than a discharge incorporated in a pump base are also disclosed, as are pumps including either a discharge or other metal-transfer conduit according to the invention.